

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended):

A method of handling memory errors comprising:

receiving and retaining control of a machine from an executing program after corruption of a memory value is detected while executing a memory load request issued by the executing program to retrieve the memory value from the memory;

receiving a speculative load indication that is true if the memory load request was issued speculatively;

reading a fault deferral indication that is true if faults caused by corruption of memory values can be deferred, the fault deferral indication being set before the corruption of the memory value is detected;

if the fault deferral indication is true and the speculative load indication is true, then

providing an error indication that the returned memory value is invalid, and invalid;
and,

returning control of the machine to the executing program; program.

otherwise

attempting to correct the corruption of the memory value, and

if the corruption of the memory value is correctable, then

returning control of the machine to the executing program,

otherwise

transferring control of the machine to exception-handling code.

2. (previously presented):

The method of claim 1, wherein the error indication is a flag bit associated with the returned memory value.

3. (previously presented):

The method of claim 1, wherein the error indication is setting the returned memory value to an invalid value.

4.-5. (canceled)

6. (currently amended):

A machine-readable medium that provides instructions, which when executed by a machine, cause the machine to perform operations comprising:

receiving and retaining control of ~~a~~the machine from an executing program after corruption of a memory value is detected while executing a memory load request issued by the executing program to retrieve the memory value from the memory;

receiving a speculative load indication that is true if the memory load request was issued speculatively;

reading a fault deferral indication that is true if faults caused by corruption of memory values can be deferred, the fault deferral indication being set before the corruption of the memory value is detected;

if the fault deferral indication is true and the speculative load indication is true, then

providing an error indication that the returned memory value is invalid, and ~~invalid;~~
~~and,~~

returning control of the machine to the executing program; ~~program.~~

otherwise

attempting to correct the corruption of the memory value, and

if the corruption of the memory value is correctable, then

returning control of the machine to the executing program,

otherwise

transferring control of the machine to exception-handling code.

7. (previously presented):

The machine-readable medium of claim 6, wherein the error indication is a flag bit associated with the returned memory value.

8. (previously presented):

The machine-readable medium of claim 6, wherein the error indication is setting the returned value to an invalid memory value.

9.-10. (canceled)

11. (currently amended):

A machine comprising:

an interface to receive a value from a memory coupled to the machine;

a speculative load indicator that is true if the memory load request was issued speculatively; and

a fault deferral indicator that is true if faults caused by corruption of memory values can be deferred, the fault deferral indicator being set before the corruption of the memory value is detected;

a machine-readable medium that provides instructions, which when executed by the machine, cause the machine to perform operations including

receiving and retaining control of the machine from an executing program after corruption of the memory value is detected while executing a memory load request issued by the executing program to retrieve the memory value from the memory;

if the fault deferral indication is true and the speculative load indication is true, then

providing an error indication that the returned memory value is invalid, and
invalid; and,

returning control of the machine to the executing program; ~~program.~~

otherwise

attempting to correct the corruption of the memory value, and

if the corruption of the memory value is correctable, then

returning control of the machine to the executing program,

otherwise

transferring control of the machine to exception-handling code.

12. (previously presented):

The machine of claim 11, wherein the machine further comprises a register to receive the memory value, and a flag bit associated with the register, wherein the error indication is a defined value of the flag bit.

13. (previously presented):

The machine of claim 11, wherein the machine further comprises a register to receive the memory value, and the error indication is an invalid memory value in the register.

14.-15. (canceled)

16. (currently amended):

A system comprising:

a machine;

a memory that includes an error correcting code coupled to the machine; and

a machine-readable medium that provides instructions, which when executed by the machine, cause the machine to perform operations including

receiving and retaining control of the machine from an executing program after corruption of the memory value is detected by the error correcting code while executing a memory load request issued by the executing program to retrieve the memory value from the memory,

reading a fault deferral indication that is true if faults caused by corruption of memory values can be deferred, the fault deferral indication being set before the corruption of the memory value is detected;

receiving a speculative load indication that is true if the memory load request was issued speculatively,

if the fault deferral indication is true and the speculative load indication is true,

if the fault deferral indication is true and the speculative load indication is true, then

providing an error indication that the returned memory value is invalid, and
invalid; and,

returning control of the machine to the executing program; ~~program~~.

otherwise

attempting to correct the corruption of the memory value by use of the error
correcting code, and

if the corruption of the memory value is correctable, then

returning control of the machine to the executing program,

otherwise

transferring control of the machine to exception-handling code.

17. (previously presented):

The system of claim 16, wherein the machine further comprises a register to receive the memory value, and a flag bit associated with the register, wherein the error indication is a defined value of the flag bit.

18. (previously presented):

The system of claim 16, wherein the machine further comprises a register to receive the memory value, and the error indication is an invalid memory value in the register.

19.-20. (canceled)

21. (new):

The system of claim 16, wherein the machine further provides first programming model and a second programming model, and providing the error indication that the returned memory value is invalid further requires that the second programming model be selected.

22. (new):

The method of claim 1, wherein the machine further provides first programming model and a second programming model, and providing the error indication that the returned memory value is invalid further requires that the second programming model be selected.

23. (new):

The machine-readable medium of claim 6, wherein the machine further provides first programming model and a second programming model, and providing the error indication that the returned memory value is invalid further requires that the second programming model be selected.

24. (new):

The machine of claim 11, wherein the machine further provides first programming model and a second programming model, and providing the error indication that the returned memory value is invalid further requires that the second programming model be selected.